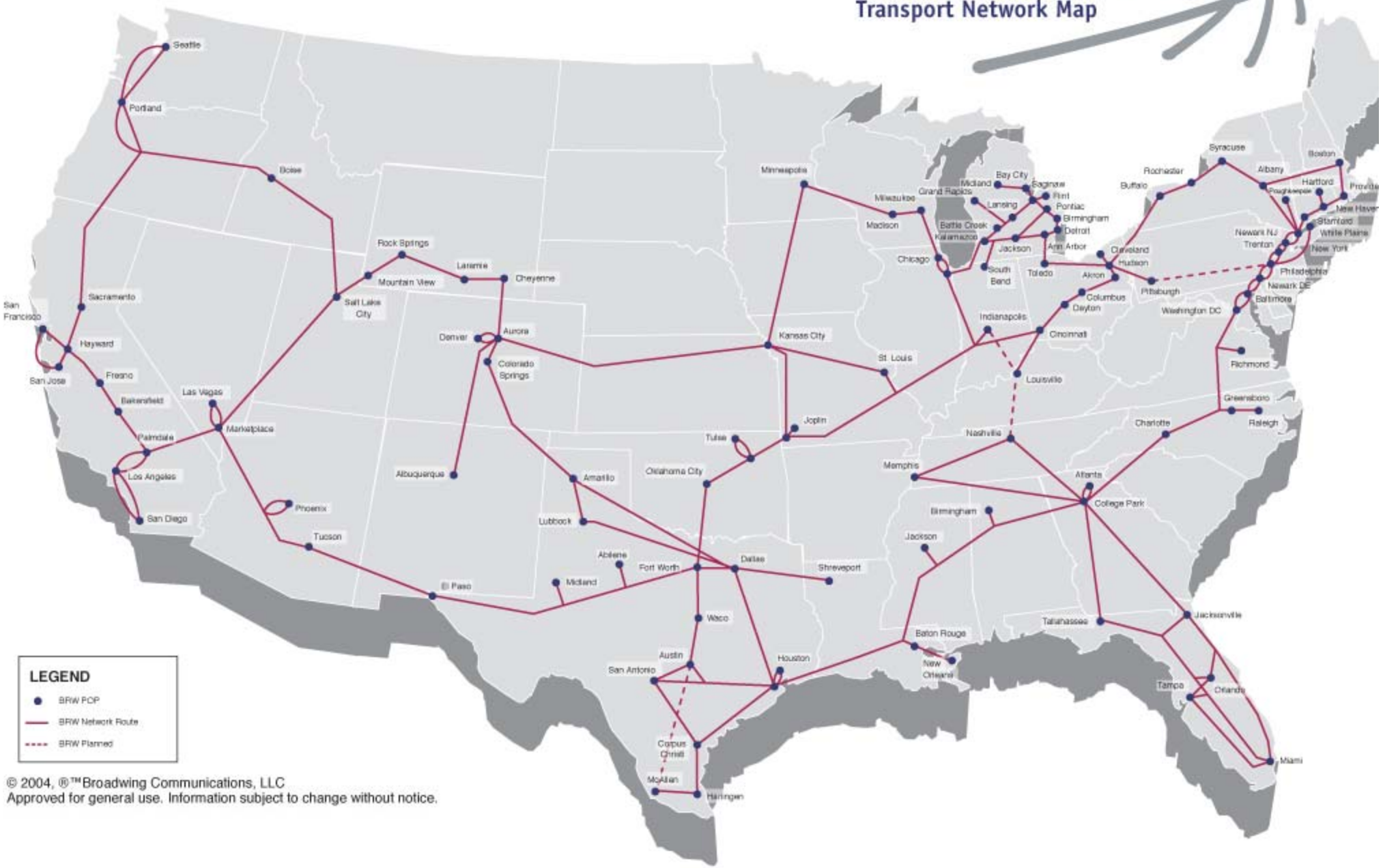
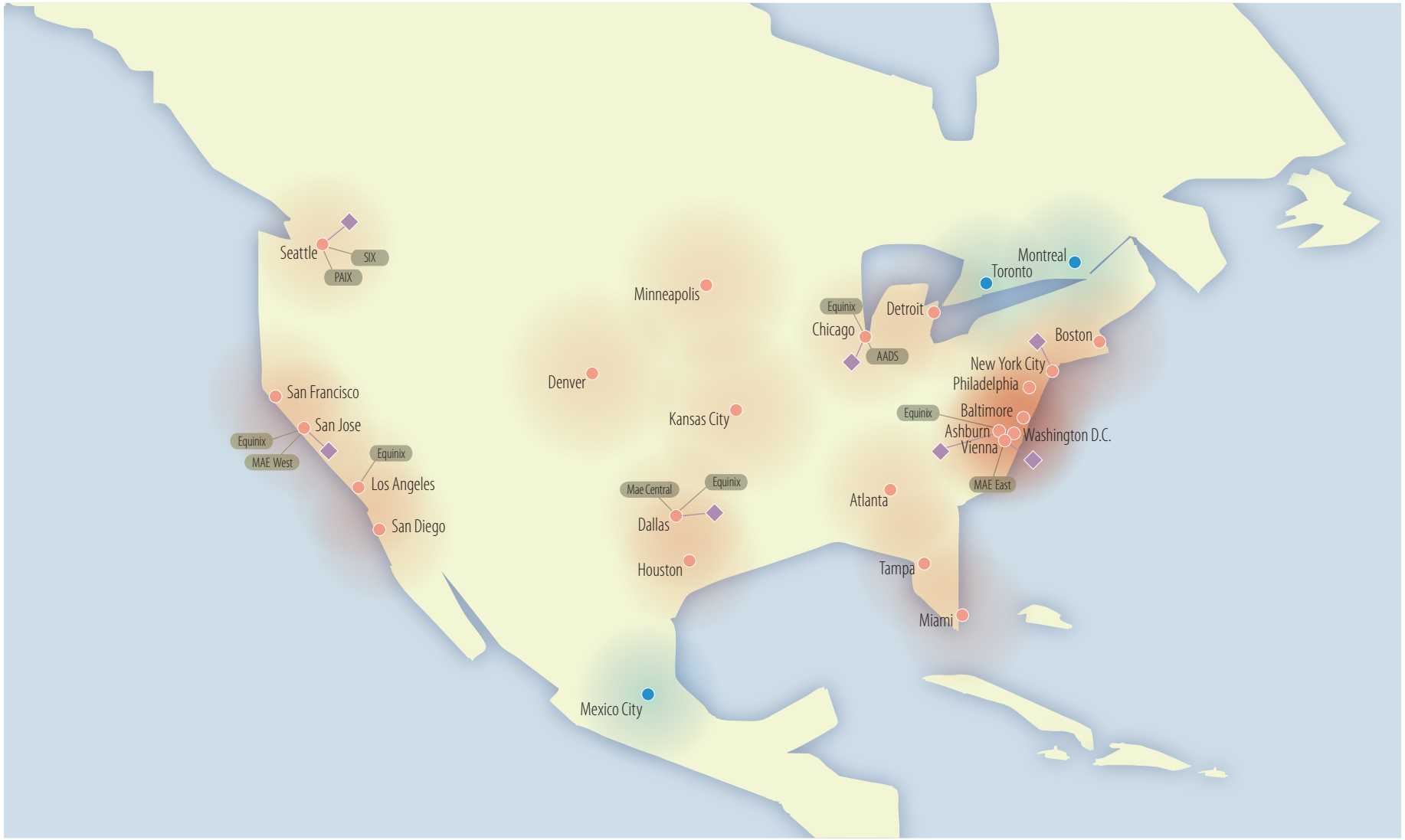
Broadwing

Transport Network Map



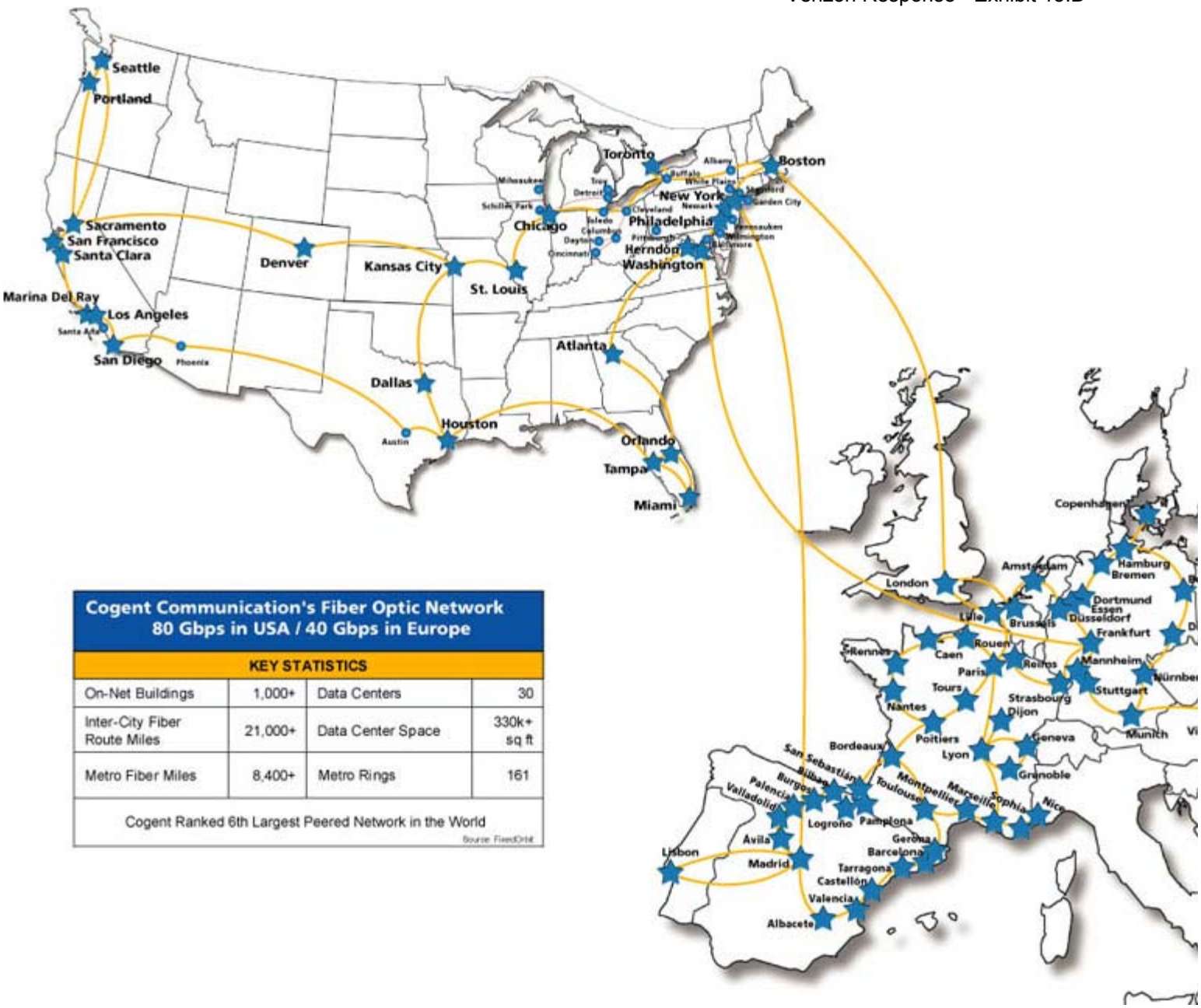
http://www.broadwing.com/images/transportnetwork-lg.jpg

btnaccess


Seattle
SIX
PAIX
Minneapolis
Montreal
Toronto
Equinix
Detroit
Chicago
AADS
Boston
New York City
Philadelphia
Denver
San Francisco
Kansas City
Equinix
Baltimore
Ashburn
Washington D.C.
Vienna
San Jose
Equinix
MAE West
Equinix
Los Angeles
MAE East
Atlanta
Mae Central
Equinix
Dallas
San Diego
Houston
Tampa
Miami
Mexico City
Btn Node
NAP Connections
Private Peering Points
Access Node

btnaccess

For more information please visit **www.btnaccess.com** or contact our sales team at **sales@btnaccess.com**



Cogent Communication's Fiber Optic Network 80 Gbps in USA / 40 Gbps in Europe			
KEY STATISTICS			
On-Net Buildings	1,000+	Data Centers	30
Inter-City Fiber Route Miles	21,000+	Data Center Space	330k+ sq ft
Metro Fiber Miles	8,400+	Metro Rings	161
Cogent Ranked 6th Largest Peered Network in the World			

Source: FixedOrbit

http://www.cogentco.com/htdocs/network_popUp.php

Cox Optical Internet

Cox Business Services knows what it takes to give your business the kind of reliable, scalable, high-speed Internet services your business depends on to grow – and we designed Cox Optical Internet to do just that. Cox Optical Internet uses our own fiber-based metropolitan networks and nationwide fiber optic IP backbone, designed and built by Cox, to give you exactly the capacity you need, even when your needs change. So no matter what bandwidth and complex applications your business requires, both today and in the future, Cox Optical Internet can handle it. Let Cox Optical Internet give your business:

Get Started Today

Remember: good communications mean good business. So no matter what speed and Internet capacity your business needs, both today and tomorrow, Cox's metropolitan area networks, nationwide IP backbone and Tier One Internet transit partners give you an unsurpassed foundation for non-stop growth. There's no better security for your critical communications than Cox's stable platform and reliable name. So get the bandwidth you need to communicate and grow. Contact your local sales representative. Tell us you want a better Internet connection and a communications platform built just for you. We'll get you started.

Cox Managed Local Connectivity For End-To-End Reliability

We deliver Cox Optical Internet over our own redundant, fully-meshed fiber optic metropolitan area networks (MANs), scalable up to OC-192 or even higher with our deployed DWDM technology. Each Cox MAN uses a transport technology – ATM, SONET or Gigabit Ethernet – to speed your data traffic to the Internet, so your business can count on Cox for the entire connection, from beginning to end.

A Communications Platform Built For You

Cox built our own nationwide fiber optic IP backbone with inter-Cox system links up to OC-48 in capacity to provide a solid foundation for the increasingly complex communications needs of businesses like yours. Through our numerous and geographically diverse private peering arrangements, Cox provides reliable connectivity and optimum throughput. We also maintain multiple interconnects —transit links of either an OC-48 or dual Gigabit Ethernet connection - with our Tier One transit partners, strategically placed at eight different geographic locations across the country. So go ahead and grow - we're built to handle it.

A Stable, Experienced Provider

No matter how technologically advanced the network is, your Internet services are only as reliable as the company providing them. That's why it's good to know that Cox Business Services is backed by the financial stability of Cox Communications, one of the nation's largest broadband companies. This proven strength gives Cox Business Services powerful advantages that other providers simply don't have, including state-of-the-art technology and a solid financial foundation. And it gives you the peace-of-mind that only comes from choosing Cox.

Responsive Support and Local Service

Your communications are critical to your business. Cox understands that. It's why we monitor our networks around the clock from our state-of-the-art Network Operations Center (NOC), allowing us to respond to potential problems before they affect your service. It's why we provide responsive customer care and local, professional technicians who are ready to help with whatever you need. In short, that's why you can count on Cox.

COX Business Services

How It Works For You:

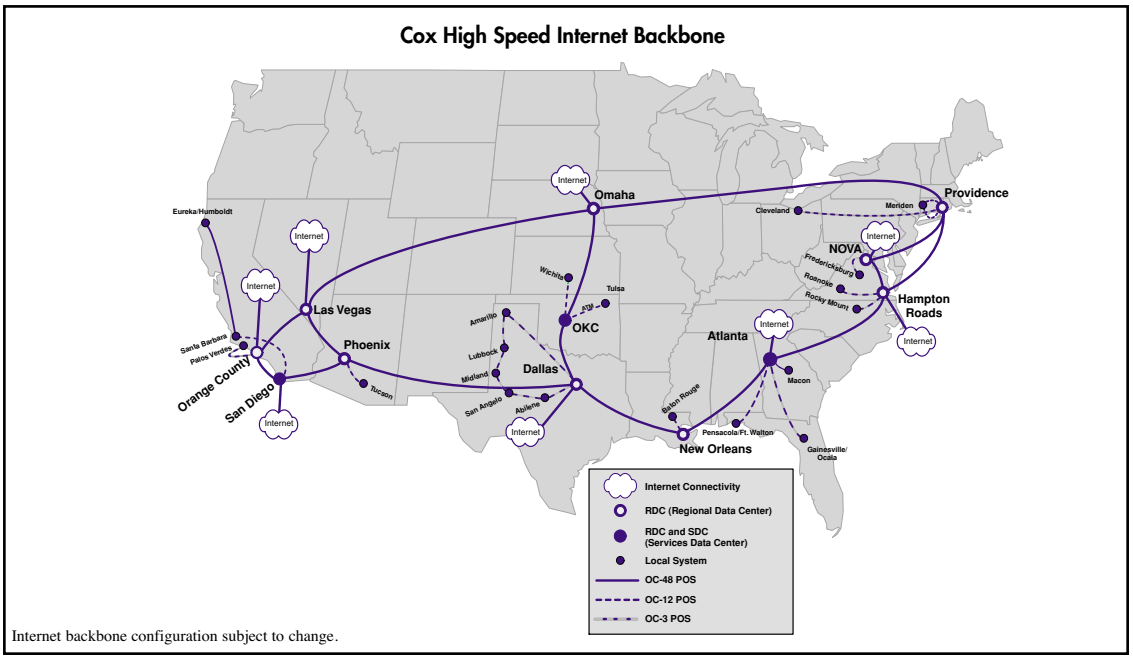
Choose the Cox Optical Internet speed that's right for you. Then enjoy all the features that your business needs to expand your reach online, including:

Service Features:

- Tiered bandwidth options scalable to OC-12
- Cox scalable, high-capacity metropolitan fiber network and nationwide fiber optic IP backbone up to OC-48
- Geographically diverse, high capacity private and public peering links to numerous content and service providers
- Variety of customer hand-offs, including 10/100 Ethernet, Gigabit Ethernet, DS-x and OC-x interfaces
- Primary and secondary DNS services
- Domain name registration
- CoxMail[sm] available
- Newsgroup access
- Multiple public IP address leasing included*
- BGP routing option†

Support Features:

- On-site installation and support
- Access circuit provisioning from your site to our hub
- End-to-end managed connection
- Network monitored 24 hours a day, seven days a week
- Responsive technical support around the clock
- Managed services options available, including VPN and router services



Internet backbone configuration subject to change.

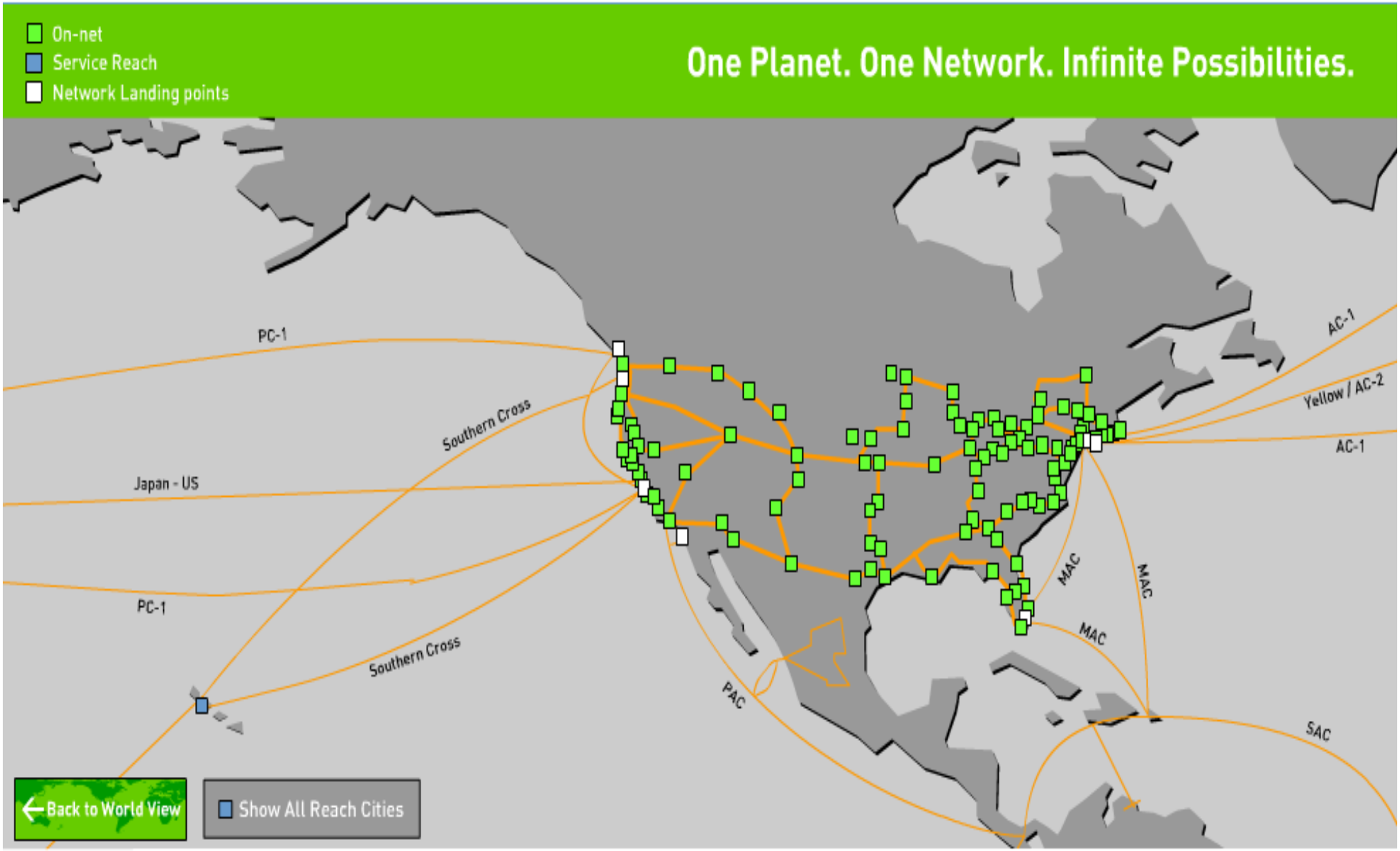
How The Cox Network Benefits You

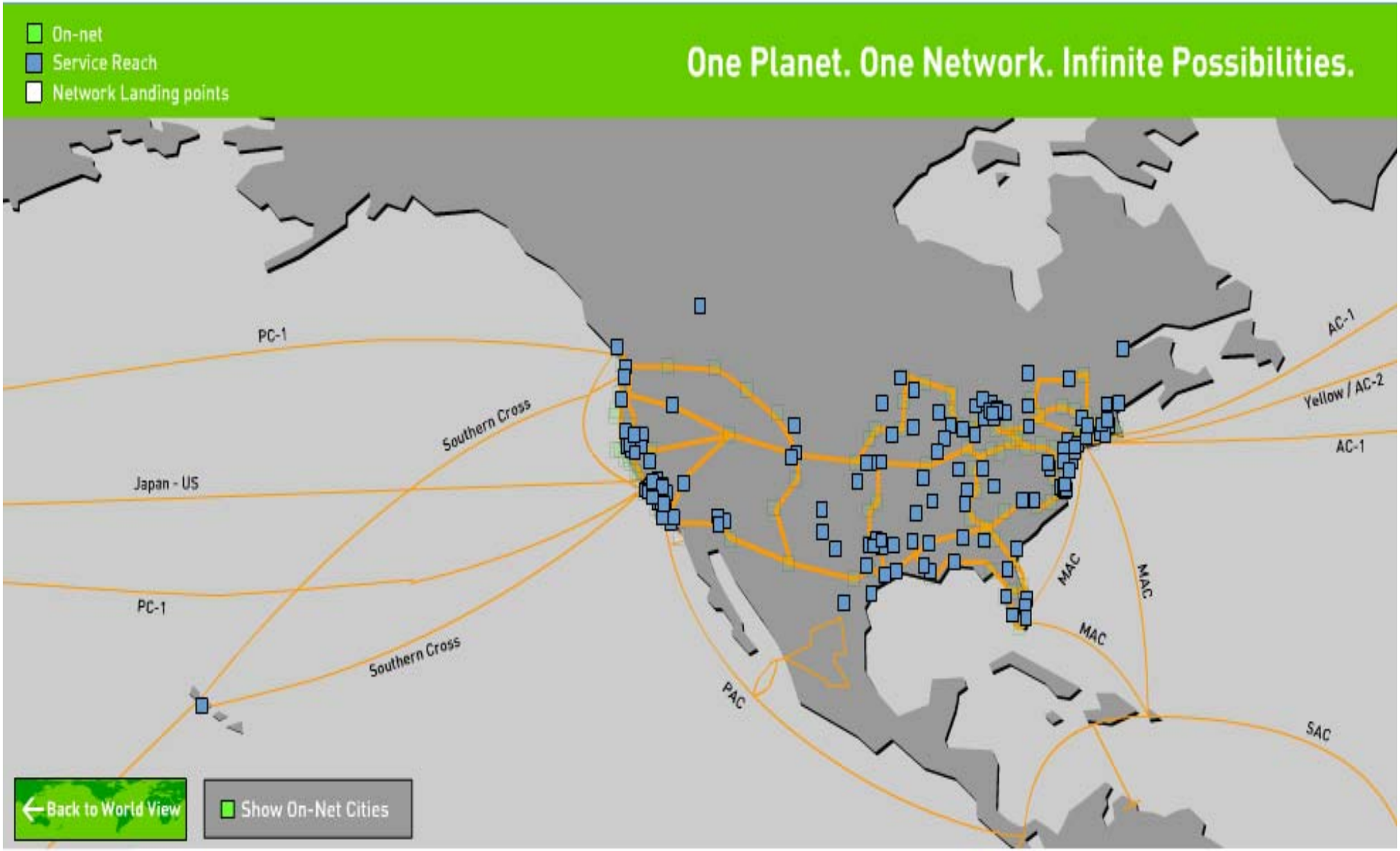
There's no better way to get the stability, speed and scalability that your business needs to work efficiently and effectively than with Cox Optical Internet. That's because Cox delivers your service over both a fiber optic local network and a nationwide fiber optic IP backbone for a dual layer of reliability that simply can't be beat. Plus, Cox owns and manages our own network, providing a complete, end-to-end connection – and a level of service and dependability that you just can't find anywhere else. Count on Cox Optical Internet to provide the flexibility you want, plus the reliability you need, both for today and for tomorrow.

Cox Business Services®
www.coxbusiness.com

Specific support and equipment repair and replacement obligations may vary depending on terms and conditions of applicable service agreement. Services not available in all areas. Other restrictions may apply.
*Subject to the Cox IP Address Assignment Policy.
†Subject to Cox's BGP peering requirements.

DCOI 12/02


On-net
Service Reach
Network Landing points
One Planet. One Network. Infinite Possibilities.
PC-1
Southern Cross
Japan - US
PC-1
Southern Cross
PAC
MAC
MAC
MAC
SAC
AC-1
Yellow / AC-2
AC-1
Back to World View
Show All Reach Cities

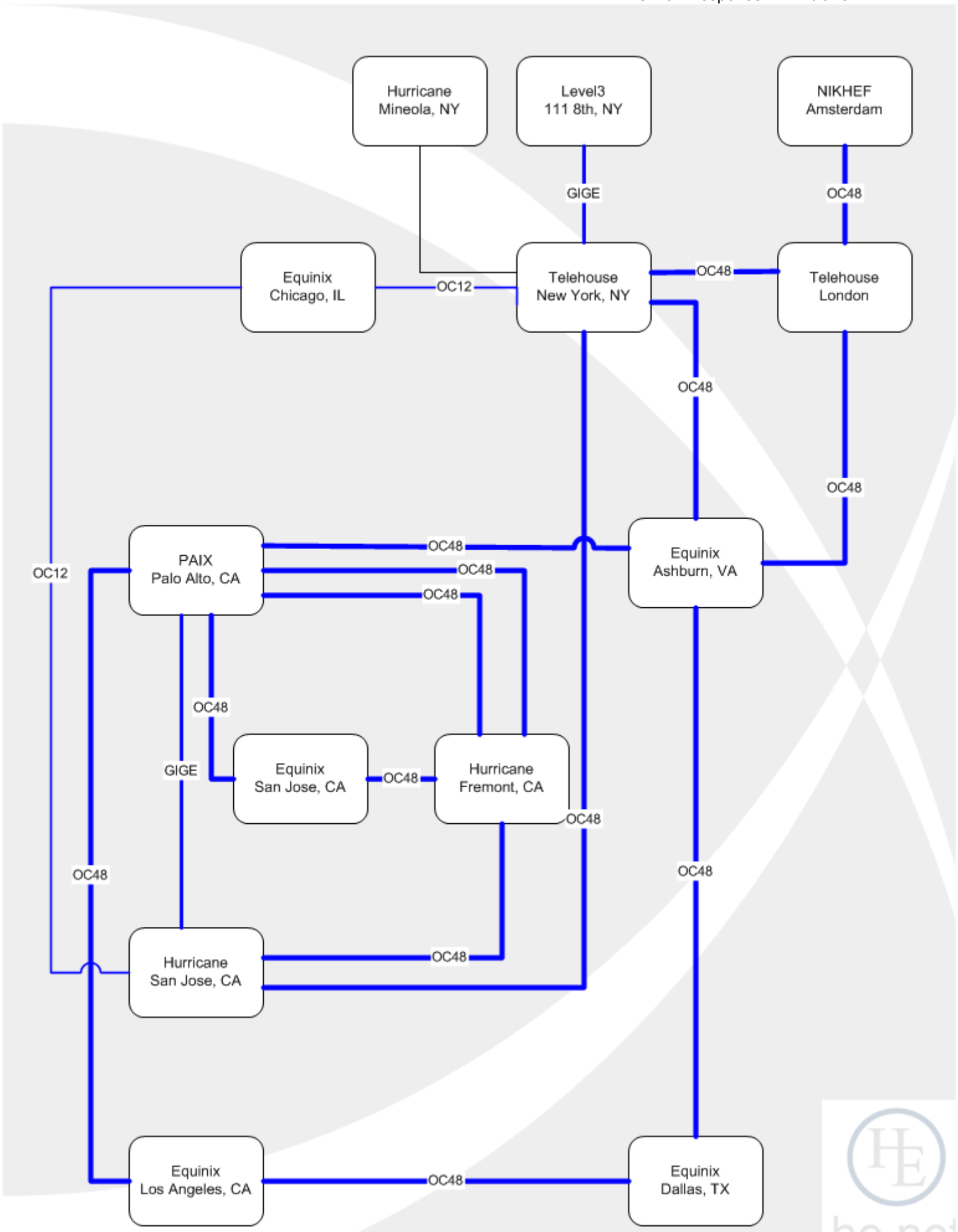

On-net
Service Reach
Network Landing points
One Planet. One Network. Infinite Possibilities.
PC-1
Southern Cross
Japan - US
PC-1
Southern Cross
PAC
MAC
MAC
MAC
SAC
AC-1
Yellow / AC-2
AC-1
Back to World View
Show On-Net Cities

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION

REDACTED – FOR PUBLIC INSPECTION



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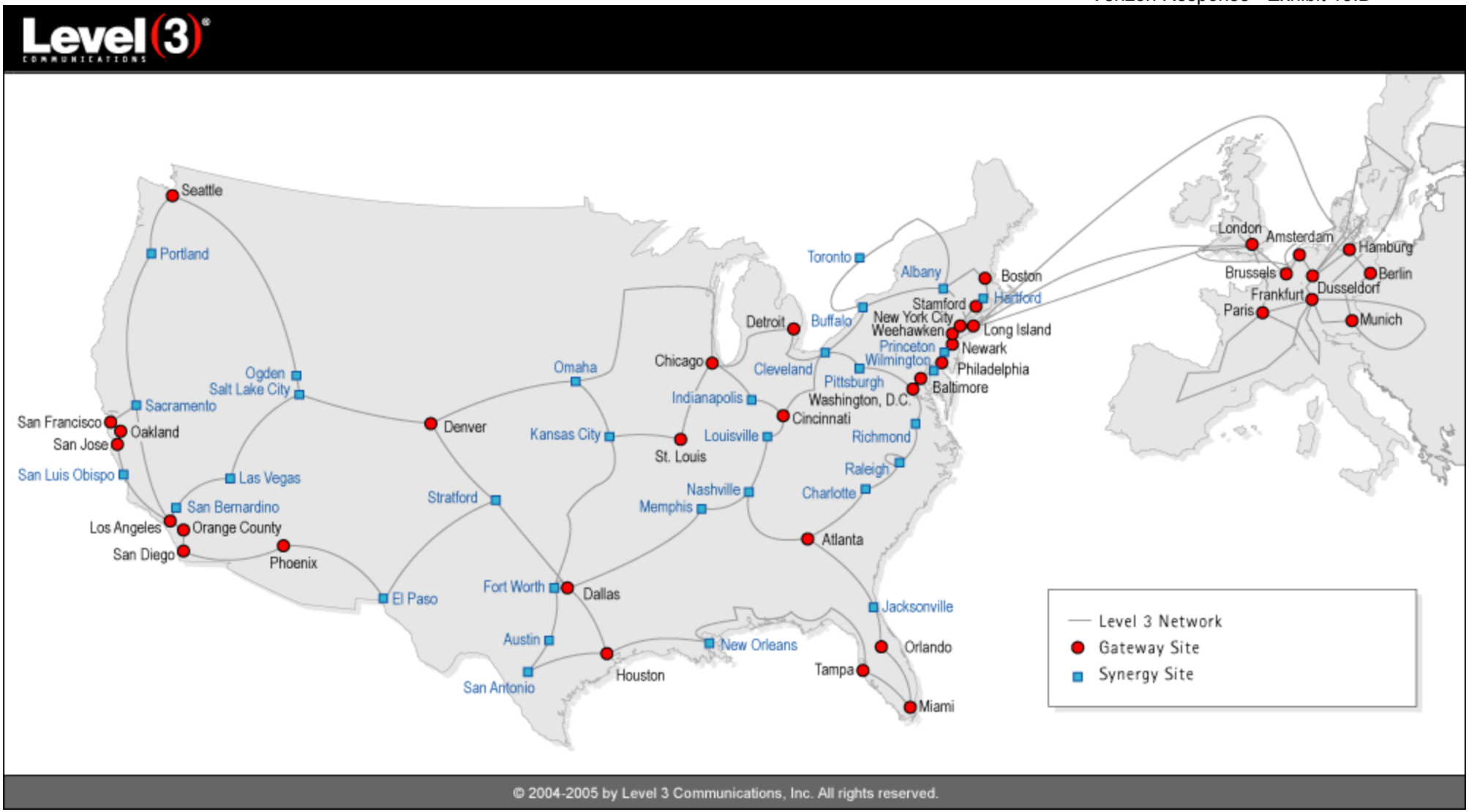

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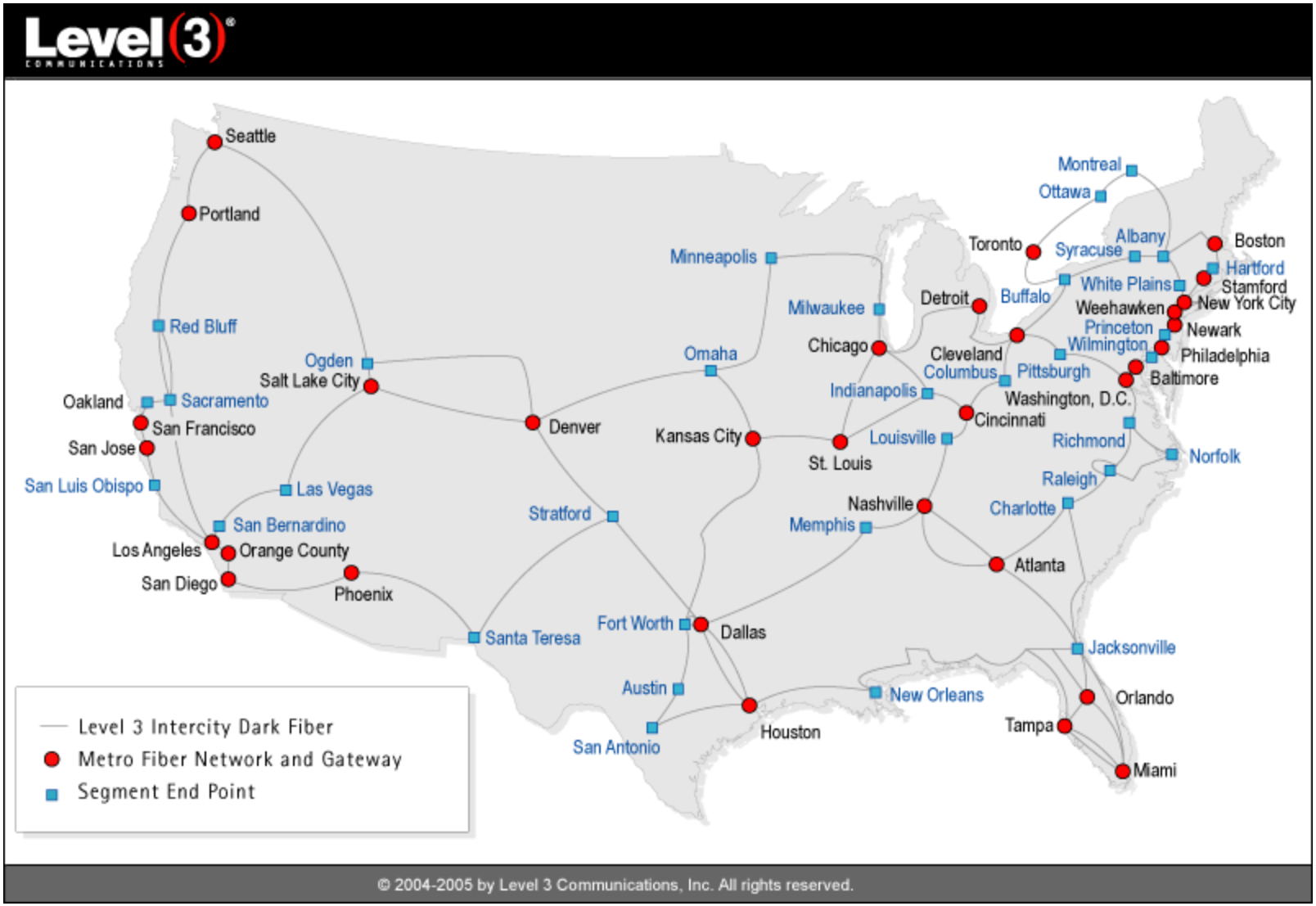

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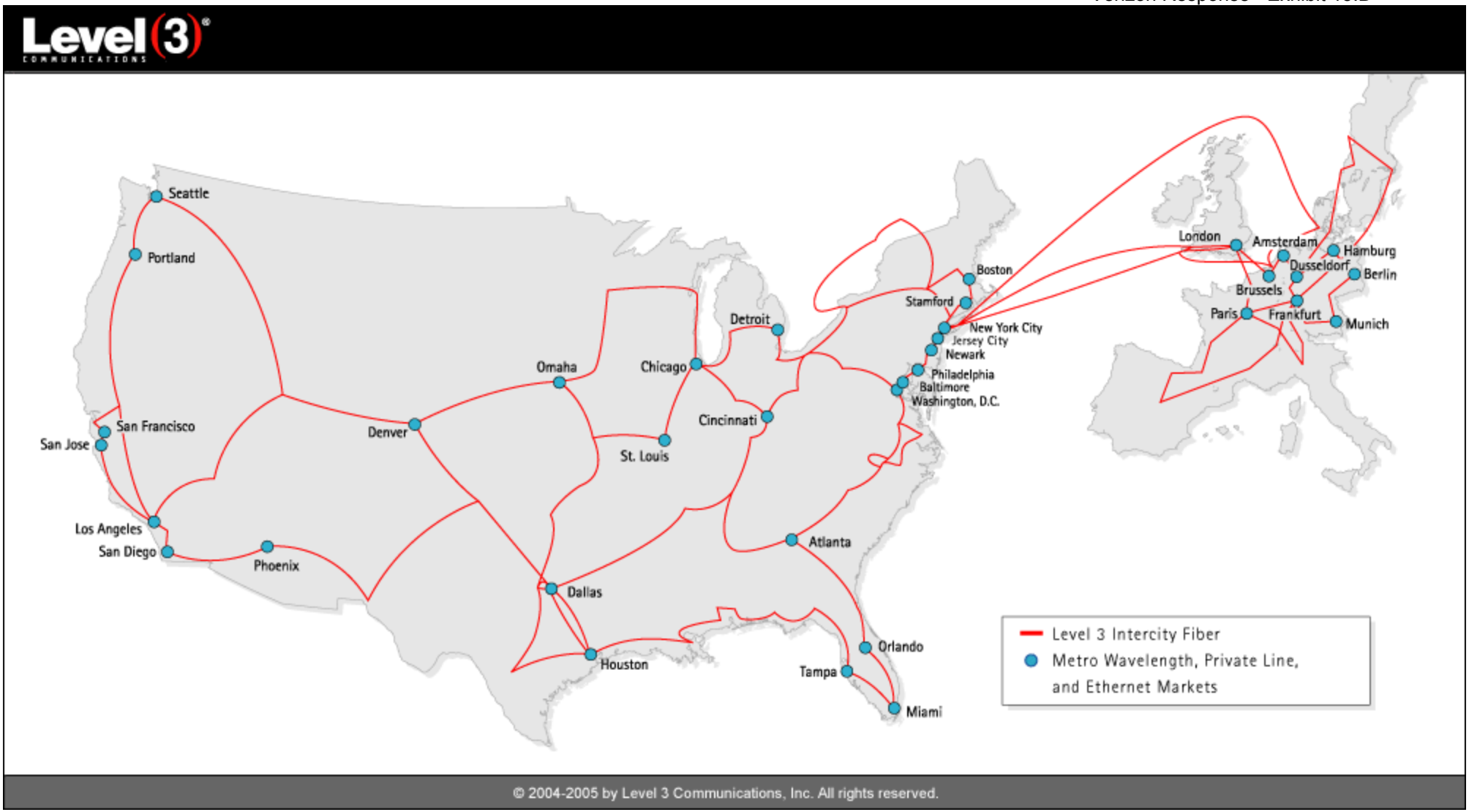

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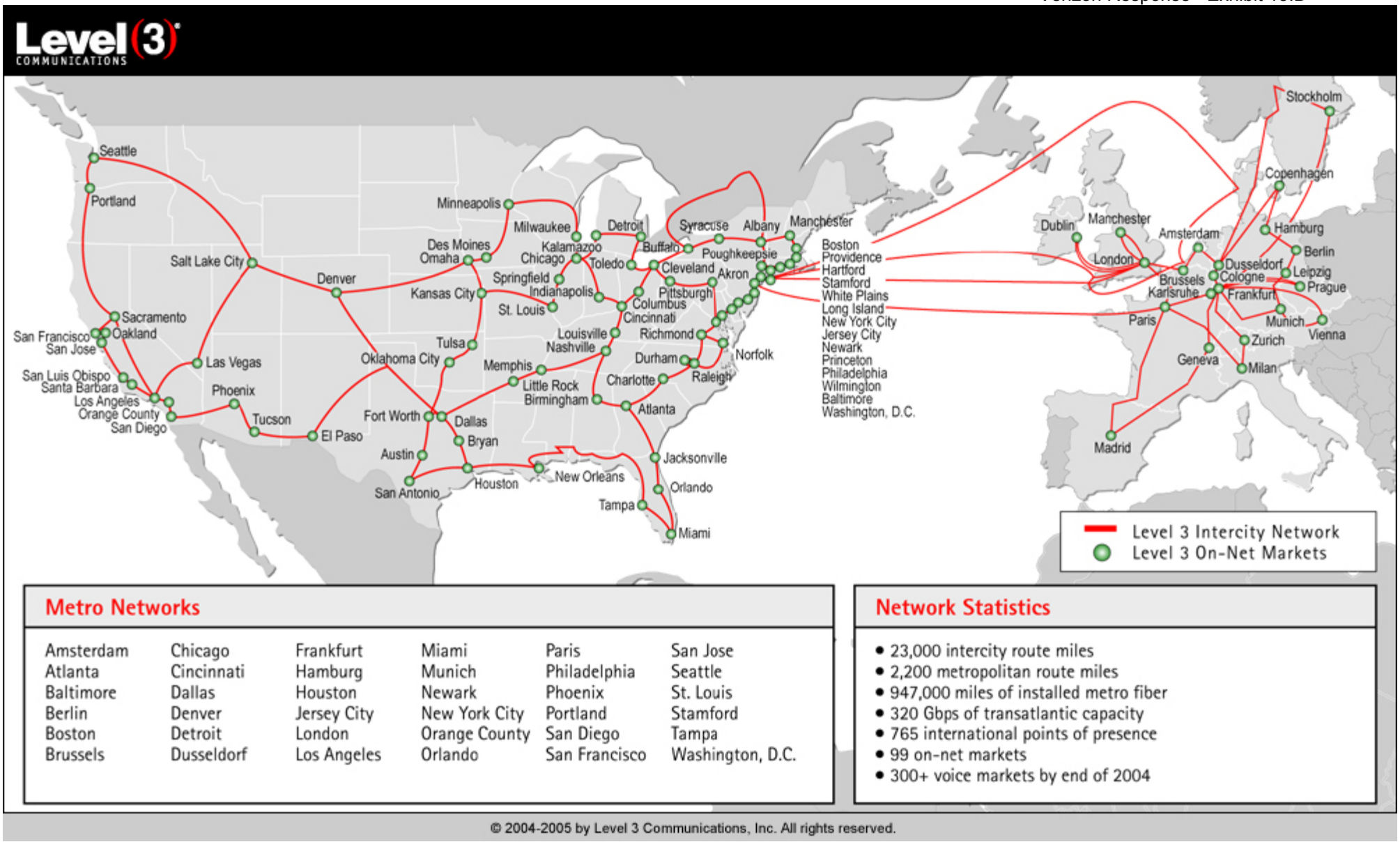


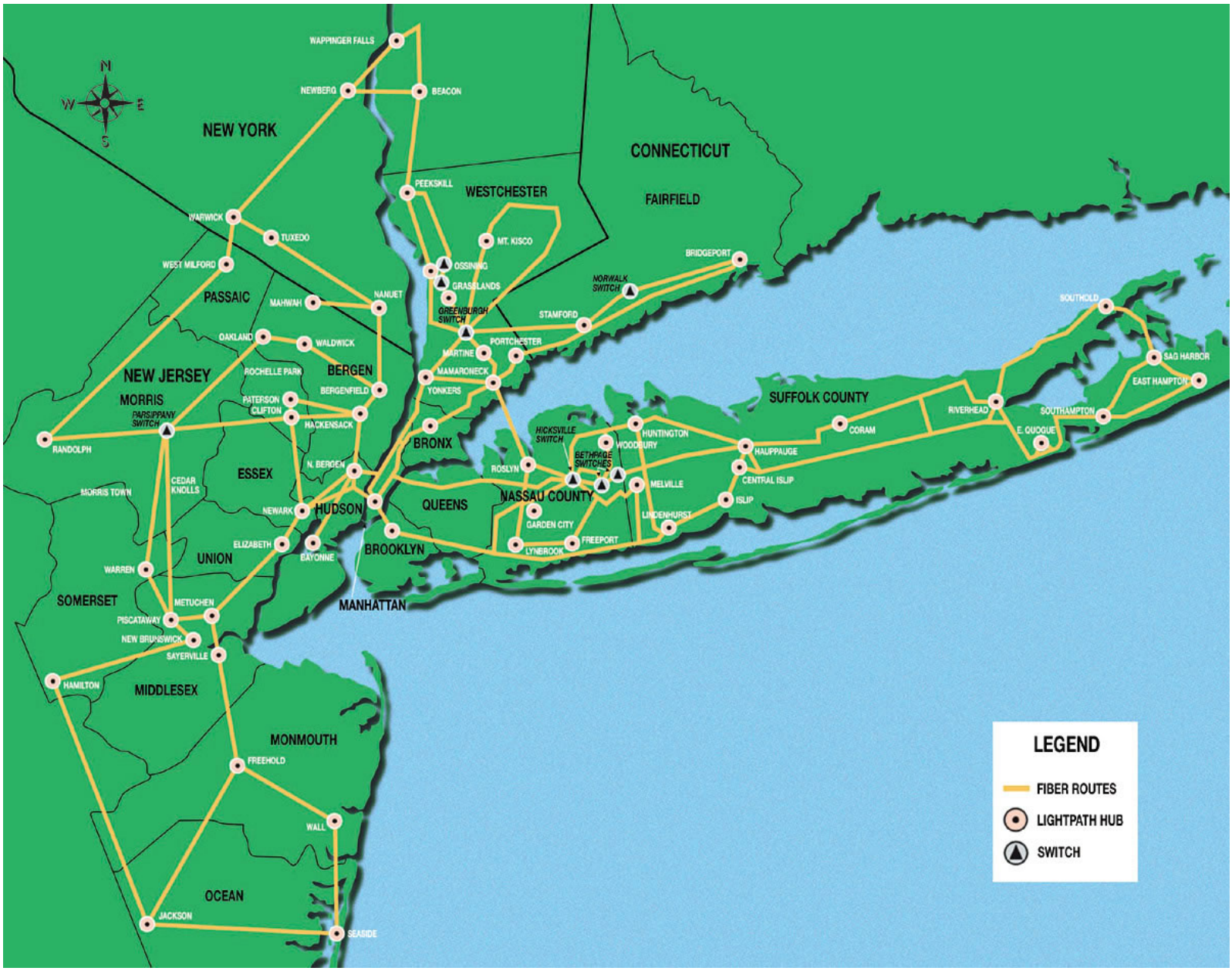
Metro Networks

Amsterdam	Chicago	Frankfurt	Miami	Paris	San Jose
Atlanta	Cincinnati	Hamburg	Munich	Philadelphia	Seattle
Baltimore	Dallas	Houston	Newark	Phoenix	St. Louis
Berlin	Denver	Jersey City	New York City	Portland	Stamford
Boston	Detroit	London	Orange County	San Diego	Tampa
Brussels	Dusseldorf	Los Angeles	Orlando	San Francisco	Washington, D.C.

Network Statistics

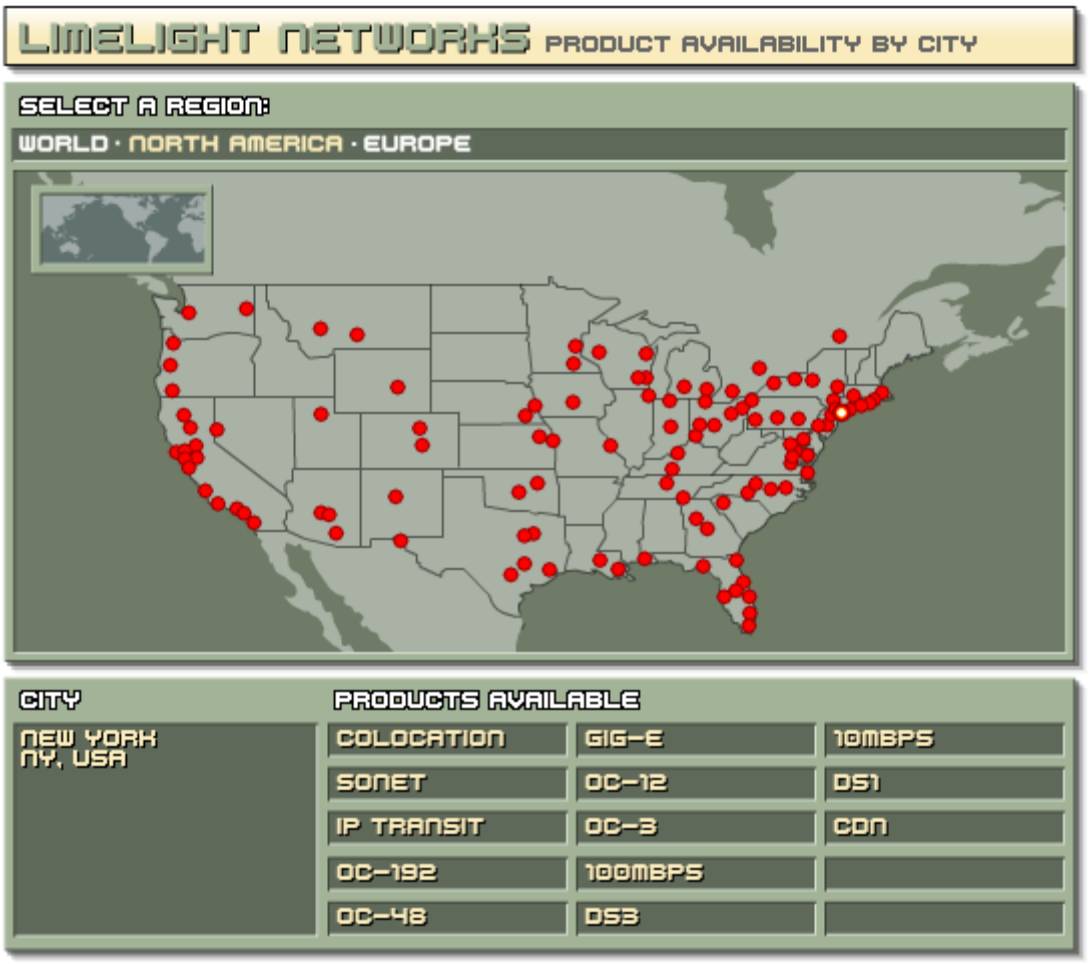
- 23,000 intercity route miles
- 2,200 metropolitan route miles
- 947,000 miles of installed metro fiber
- 320 Gbps of transatlantic capacity
- 765 international points of presence
- 99 on-net markets
- 300+ voice markets by end of 2004

http://www.level3.com/userimages/DotCom/en_US/images/ir_full.jpg


WAPPINGER FALLS
NEWBERG
BEACON
NEW YORK
CONNECTICUT
PEEKSKILL
WESTCHESTER
FAIRFIELD
WARWICK
TUXEDO
MT. KISCO
WEST MILFORD
OSSINING
BRIDGEPORT
GRASSLANDS
NORWALK SWITCH
PASSAIC
MAHWAH
NANUET
GREENBURGH SWITCH
STAMFORD
SOUTHOLD
OAKLAND
WALDWICK
PORTCHESTER
MARTINE
SAG HARBOR
NEW JERSEY
ROCHELLE PARK
BERGEN
MAMARONECK
EAST HAMPTON
MORRIS
BERGENFIELD
YONKERS
SUFFOLK COUNTY
PATERSON
CLIFTON
PARSIPPANY SWITCH
HACKENSACK
RIVERHEAD
SOUTHAMPTON
HICKSVILLE SWITCH
HUNTINGTON
CORAM
BRONX
RANDOLPH
WOODBURY
E. QUOGUE
BETHPAGE SWITCHES
HAUPPAUGE
N. BERGEN
ROSLYN
ESSEX
CEDAR KNOLLS
MELVILLE
CENTRAL ISLIP
MORRIS TOWN
NASSAU COUNTY
QUEENS
NEWARK
HUDSON
ISLIP
GARDEN CITY
LINDENHURST
ELIZABETH
BAYONNE
BROOKLYN
FREEPORT
LYNBROOK
UNION
WARREN
SOMERSET
METUCHEN
MANHATTAN
PISCATAWAY
NEW BRUNSWICK
SAYERVILLE
HAMILTON
MIDDLESEX
MONMOUTH
FREEHOLD
WALL
OCEAN
JACKSON
SEASIDE
LEGEND
FIBER ROUTES
LIGHTPATH HUB
SWITCH

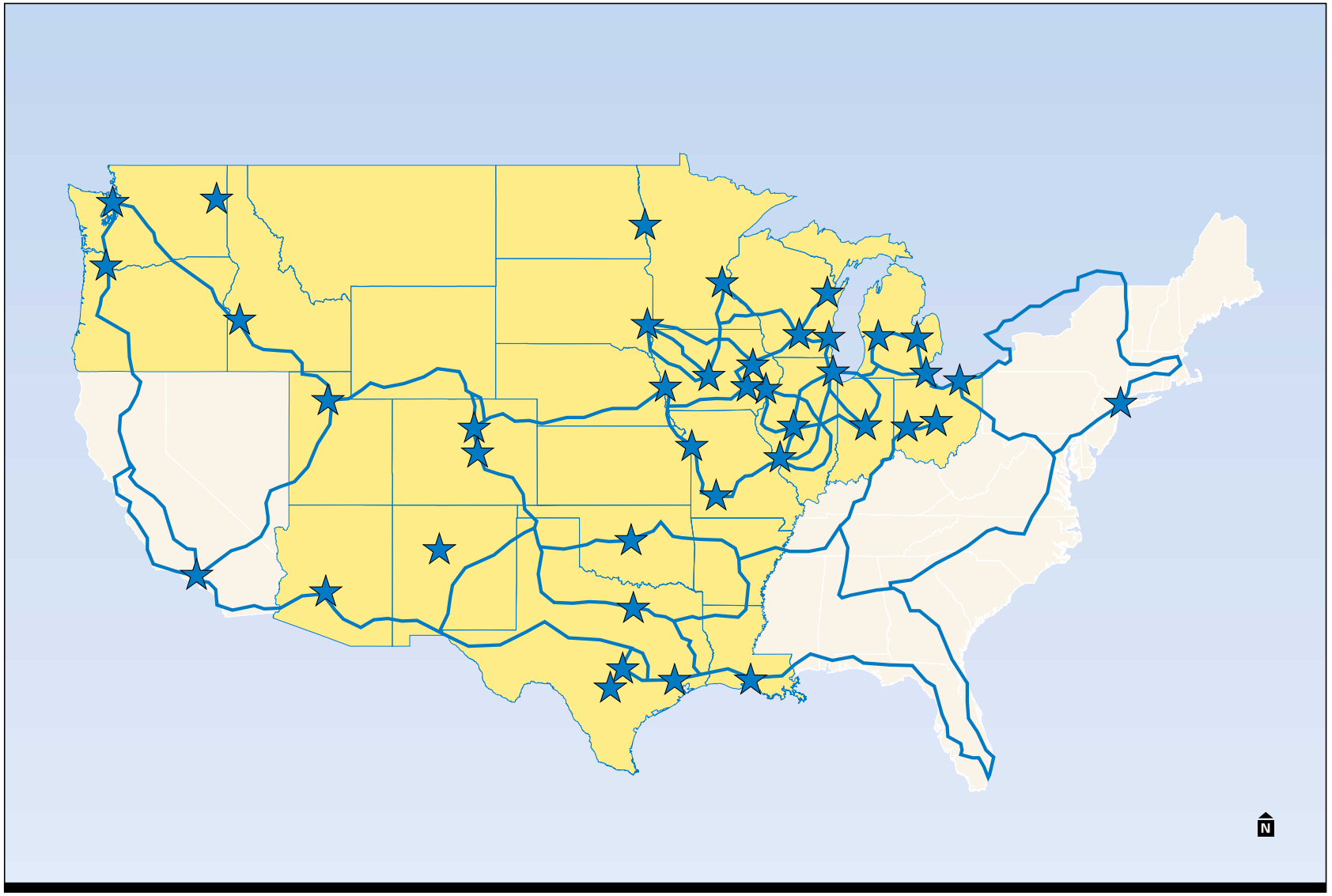
PRODUCTS MAIN
ContentEDGE
MediaEDGE
BackBone Connect
Download Management Tools
NETWORK MAP

Network Map



International Delivery - Limelight Networks is integrated with some of the largest international transit providers in the industry and our suite of delivery services takes advantage of major network interconnection locations to insure best delivery routes around the globe. Currently, Limelight Networks has direct access to over 200,000 route miles of international data delivery with carrier¹s that maintain private operations in Asia, South America, North America and Europe.

The McLeodUSA® Network

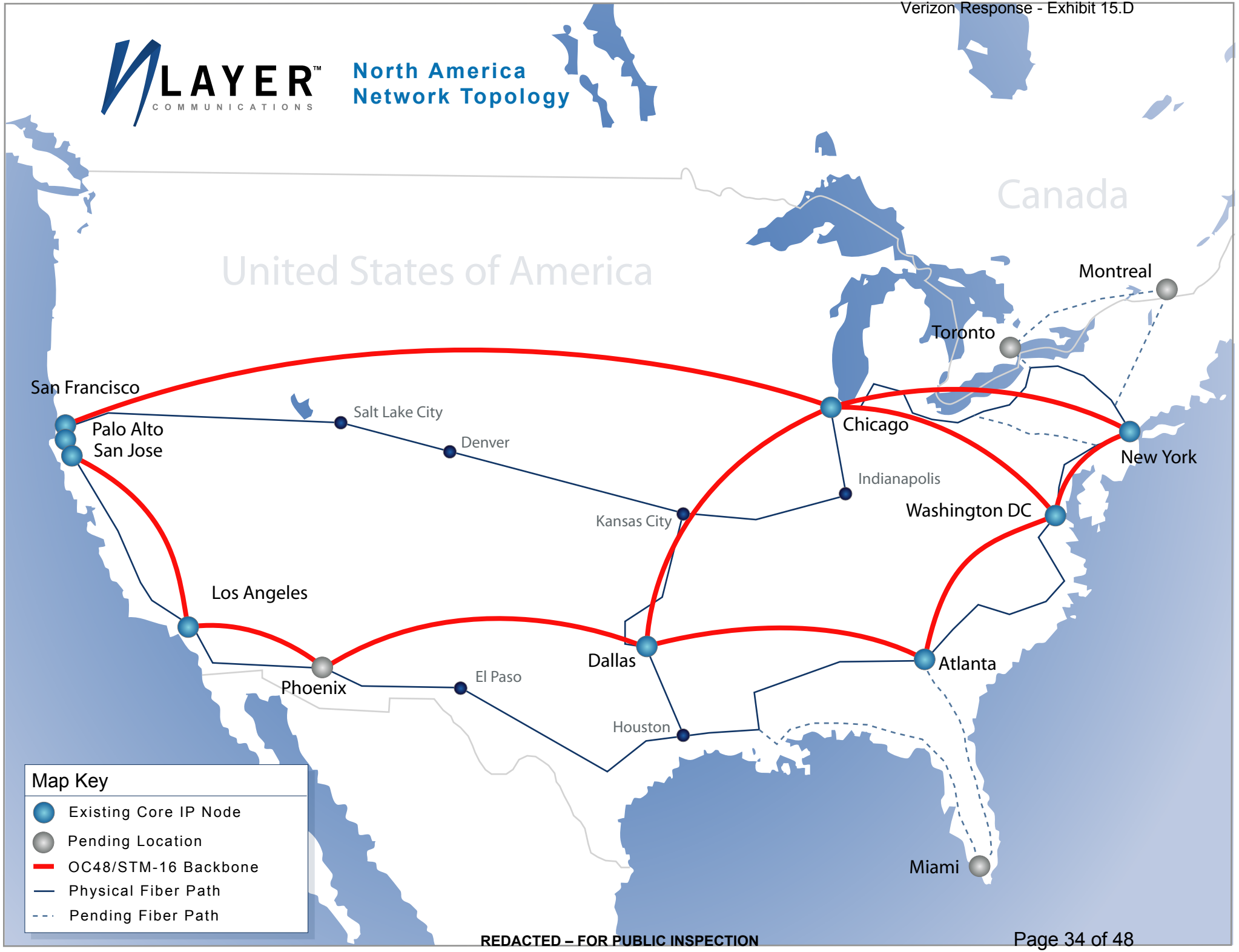


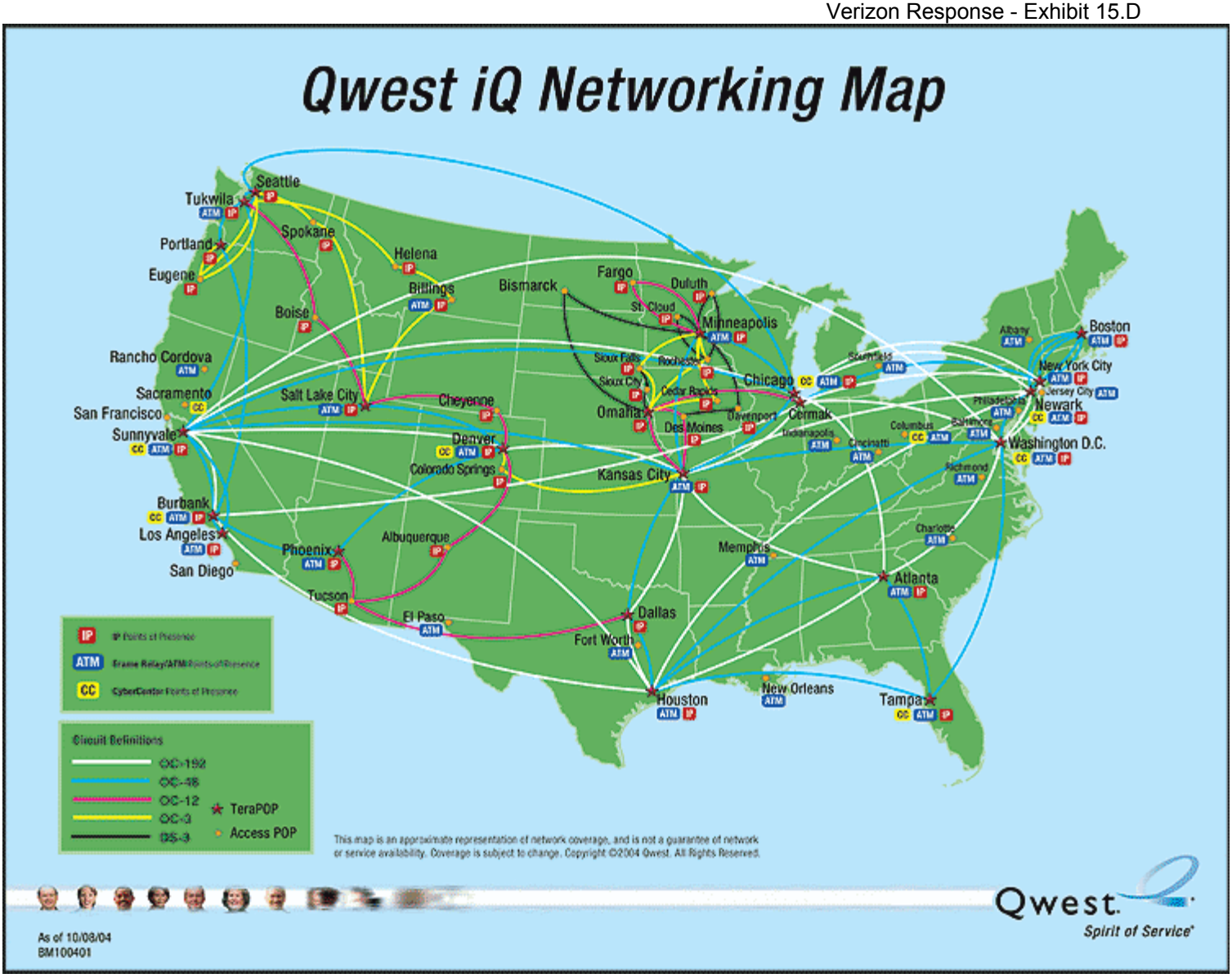
McLeodUSA
Fiber and Voice Switches

As of September 30, 2003

38 ATM switches
44 voice switches
604 colocations
435 DSLAMs

For illustration only.


LAYER COMMUNICATIONS
North America
Network Topology
Canada
United States of America
Montreal
Toronto
San Francisco
Palo Alto
San Jose
Salt Lake City
Denver
Chicago
New York
Indianapolis
Kansas City
Washington DC
Los Angeles
Dallas
Atlanta
Phoenix
El Paso
Houston
Miami
Map Key
Existing Core IP Node
Pending Location
OC48/STM-16 Backbone
Physical Fiber Path
Pending Fiber Path



http://www.qwest.com/about/qwest/network/imgs/QwestIPNetwork101104.gif

Peering Contacts | SBCIS Exchange Point Peering | SBCIS **Public** Peering Guidelines | SBCIS **Private** Peering Guidelines

SBC Internet Services Peering Contact Information

Role	Name	Telephone	Email
General Peering Account	Peering Review Team		peering@sbc.com
Maintenance Notification & Outage Reporting	Network Operations Center	+1-214-473-2237	peerops@sbc.com
Negotiators	Ren Provo & Dee Dee McGarry		ren@sbc.com and deedee@sbc.com

SBC Internet Services Exchange Point Participation Details

European Exchange Points	ASN	Announcing	Primary IP	Secondary IP	Notes
AMS-IX, Amsterdam, NL	7132	AS-SBCIS-7132	195.69.145.135		TeleCity2
BNIX, Brussels, BE	7132	AS-SBCIS-7132	Pending		Interxion
DE-CIX, Frankfurt, DE	7132	AS-SBCIS-7132	Pending		Interxion
LINX, London, UK	7132	AS-SBCIS-7132	195.66.224.210	195.66.226.210	Telehouse East
ESPANIX, Madrid, ES	7132	AS-SBCIS-7132	Pending		Banesto
PARIX, Paris, FR	7132	AS-SBCIS-7132	Pending		Telehouse Voltaire

United States Exchange Points	ASN	Announcing	Primary IP	Secondary IP	Notes
Equinix, Ashburn, VA	7132	AS-SBCIS-7132	206.223.115.79	206.223.115.89	Bldg. F
Equinix, Newark, NJ	7132	AS-SBCIS-7132	206.223.131.79		
Equinix, Dallas, TX	7132	AS-SBCIS-7132	206.223.118.79		
Equinix, Los Angeles, CA	7132	AS-SBCIS-7132	206.223.123.79		
Equinix, San Jose, CA	7132	AS-SBCIS-7132	206.223.116.79	206.223.116.89	
Equinix, Chicago, IL	7132	AS-SBCIS-7132	206.223.119.79		
S&D PAIX, New York, NY	7132	AS-SBCIS-7132	198.32.118.7		
S&D PAIX, Vienna, VA	7132	AS-SBCIS-7132	198.32.190.18		
S&D PAIX, Atlanta, GA	7132	AS-SBCIS-7132	198.32.182.11		
S&D PAIX, Palo Alto, CA	7132	AS-SBCIS-7132	198.32.176.112	198.32.176.182	
S&D PAIX, Seattle, WA	7132	AS-SBCIS-7132	198.32.134.14		
SIX, Seattle, WA	7132	AS-SBCIS-7132	198.32.180.76		
Nap of the Americas, Miami, FL	7132	AS-SBCIS-7132	198.32.124.82		

SBC Internet Services Peering Guidelines - Public & Private

The guidelines for establishing public peering with SBC Internet Services are as follows:

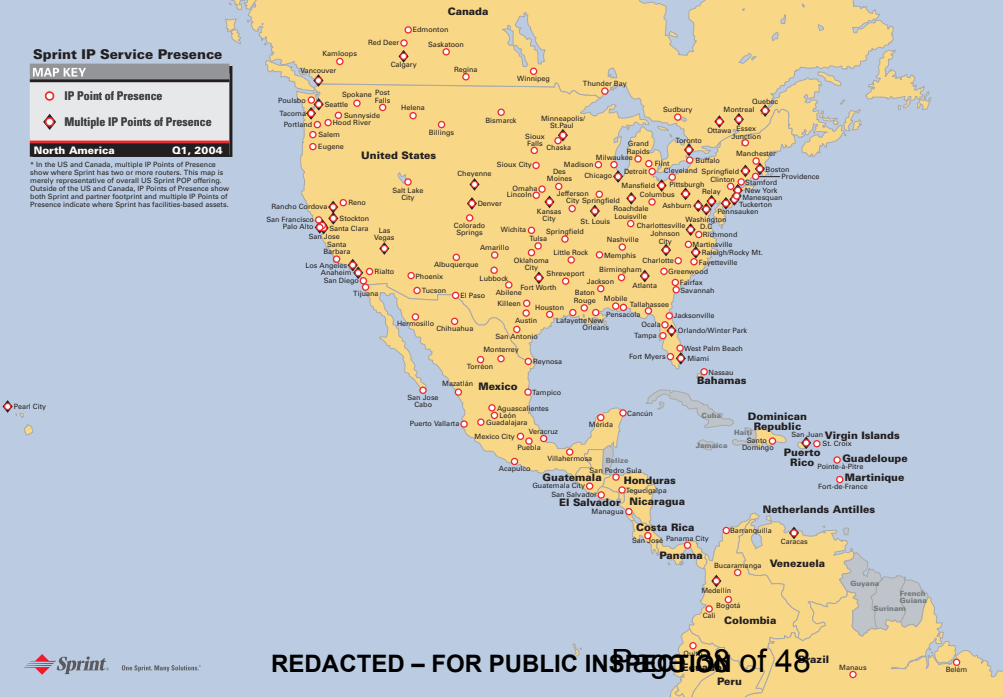
1. For US based ISPs coast-to-coast nationwide OC-48/STM16 (2.4 Gbps) or larger public IP backbone network.
2. Presence at three or more geographically dispersed public peering points listed above for domestic ISPs.
3. Presence at two or more public peering points listed above for International ISPs.
4. A total minimum busy hour traffic exchange of 50 Mbps with SBC Internet's Autonomous System Number will be required.
5. Must not have been an IP transit customer of SBC Internet in the past six (6) months.
6. Willingness to enter into a Bilateral Interconnection Agreement and Non-Disclosure Agreement with SBC Internet.
7. Operation of a 24x7x365 Network Operations Center (NOC) that proactively monitors all peering connections and provides an escalation path to quickly identify and resolve network problems.
8. No requirement for a balanced traffic exchange ratio due primarily to the asymmetric nature of current broadband metallic transmission systems such as ADSL and cable modems.
9. Joint quarterly capacity planning reviews for interconnection augmentation to accommodate traffic growth and minimize the

possibility of latency or packet loss between both networks.
10. Hot-potato routing is implied (i.e. we will not send or honor MEDs)
11. Consistent routes announcements at all public peering points.
12. MD5 passwords are required for all sessions.
13. Meeting the guidelines above for public peering with SBC Internet is not a guarantee that peering will be established. SBC Internet reserves the right to not grant peering to an applicant based on business reasons.
14. Peers who are unable to maintain the minimums listed above will be given 30 days written notice to remedy the situation.
15. Periodic review of the policies above to ensure that the criteria and eligibility requirements are consistent with SBC Internet growth and expansion is acknowledged.

The guidelines for establishing private peering with SBC Internet Services are as follows:

1. For US based ISPs coast-to-coast nationwide OC-48/STM16 (2.4 Gbps) or larger public IP backbone network.
2. Presence at three or more geographically dispersed private peering cities listed above for US based ISPs.
3. Presence at two or more geographically dispersed private peering cities listed above for International ISPs.
4. A total minimum busy hour traffic exchange of 250 Mbps with SBC Internet's Autonomous System Number will be required.
5. Must not have been an IP transit customer of SBC Internet in the past six (6) months.
6. Willingness to enter into a Bilateral Interconnection Agreement and Non-Disclosure Agreement with SBC Internet.
7. Operation of a 24x7x365 Network Operations Center (NOC) that proactively monitors all peering connections and provides an escalation path to quickly identify and resolve network problems.
8. No requirement for a balanced traffic exchange ratio due primarily to the asymmetric nature of current broadband metallic transmission systems such as ADSL and cable modems.
9. Joint quarterly capacity planning reviews for interconnection augmentation to accommodate traffic growth and minimize the possibility of latency or packet loss between both networks.
10. Consistent routes announcements at all private peering points.
11. Hot-potato routing is implied (i.e. we will not send or honor MEDs)
12. MD5 passwords are required for all sessions.
13. Meeting the guidelines above for private peering with SBC Internet is not a guarantee that private peering will be established. We prefer to trial peering at several locations to best establish circuit sizing for privates prior to committing dedicated resources. SBC Internet reserves the right to not grant peering to an applicant based on business reasons.
14. Both companies shall agree to sustain an equal financial burden for the costs of private interconnection via local facilities.
15. Peers who are unable to maintain the minimums listed above will be given 30 days written notice to remedy the situation.
16. Periodic review of the policies above to ensure that the criteria and eligibility requirements are consistent with SBC Internet growth and expansion is acknowledged.

Last Modified: 04/05/2005 11:06:00 Last Modified: March, 10th 2005 12:020



REDACTED – FOR PUBLIC INSPECTION

TelCove
www.telcove.com

ATM Infrastructure as of February 2005

- Network Operations Control Center (NOCC)
- TelCove Markets Served / Local Access Node
- Data Converging Points
- Regional Aggregation Node
- OC - 48c
- OC - 12c
- DS - 3

TelCove's ATM/Frame Relay network currently consists of nine Core Switch locations interconnected with diversely routed OC-12c or OC-48c links.

Each TelCove served market which are equipped with an Edge Switch, is connected to a Core POP location with at least a 45 Mb/s (DS-3) link. All other markets are backhauled to the nearest Edge Switch.

Although this diagram illustrates logical connectivity, each of the links shown are typically delivered over either a diverse DWDM or SONET protected network.

TelCove
www.telcove.com

IP Infrastructure as of February 2005

- Network Operations Control Center
- TelCove Markets Served
- Data Converging Points
- OC-3c, OC-12c, OC-48c, GigE Capable
- Access Connectivity
- Core to Core Connectivity

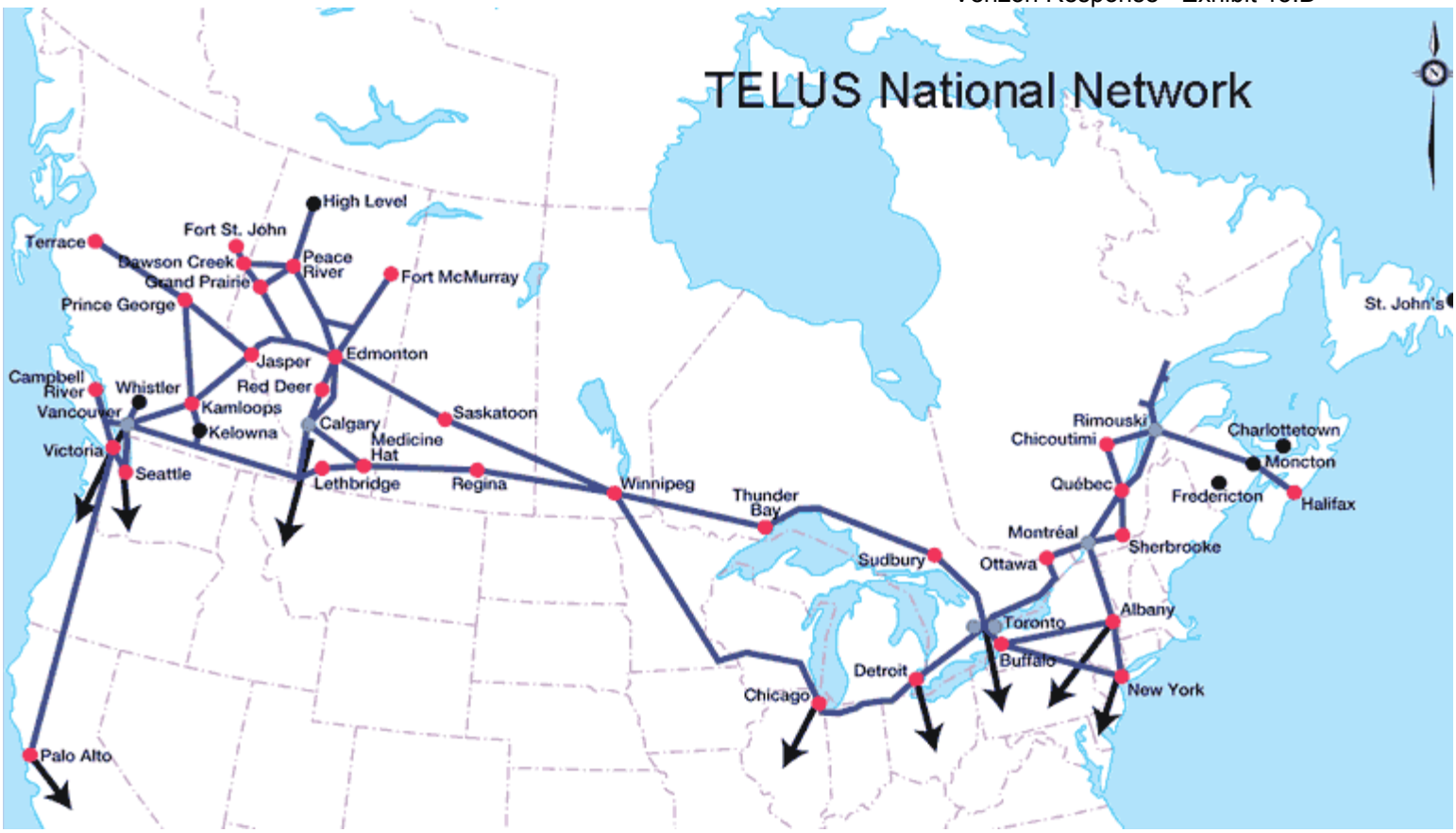
TelCove's IP network currently consists of two Core POP locations, Pittsburgh and Atlanta, which are interconnected with Gig-E diverse links. Each POP is also connected with at least 622Mb/s links to a minimum of three separate Internet transit providers, enabling, survivable connectivity to the rest of the Internet community.

Each TelCove served market which is equipped with an access router is connected to a Core POP location with at least a 150 Mb/s protected link. All other markets are backhauled to the nearest access router for network connectivity.

Although this diagram illustrates logical connectivity, each of the links shown are typically delivered over a diverse DWDM network with SONET protection enabled, which provides optimum resiliency.

TelCove
www.telcove.com

Market Coverage as of February 2005



http://about.telus.com/networktechnology/images/NationalNetwork.gif

360networks

US Long Haul Map

Last modified on November 8, 2004

Subject to change without notice. Please verify with Sales or Applications Engineering.

TIME WARNER TELECOM

CONNECTING YOUR BUSINESS TO MORE BUSINESS

About Us | News & Information | Investors | Customer Solutions | Customer Center | Contact U

My Local Sales Office | My Account | Request a Sales Call

About Us

- Our Management Team
- Our Networks
- TWTC Q&A
- TWTC Vision
- TWTC Way
- Careers
- Legal Notices

Our Networks

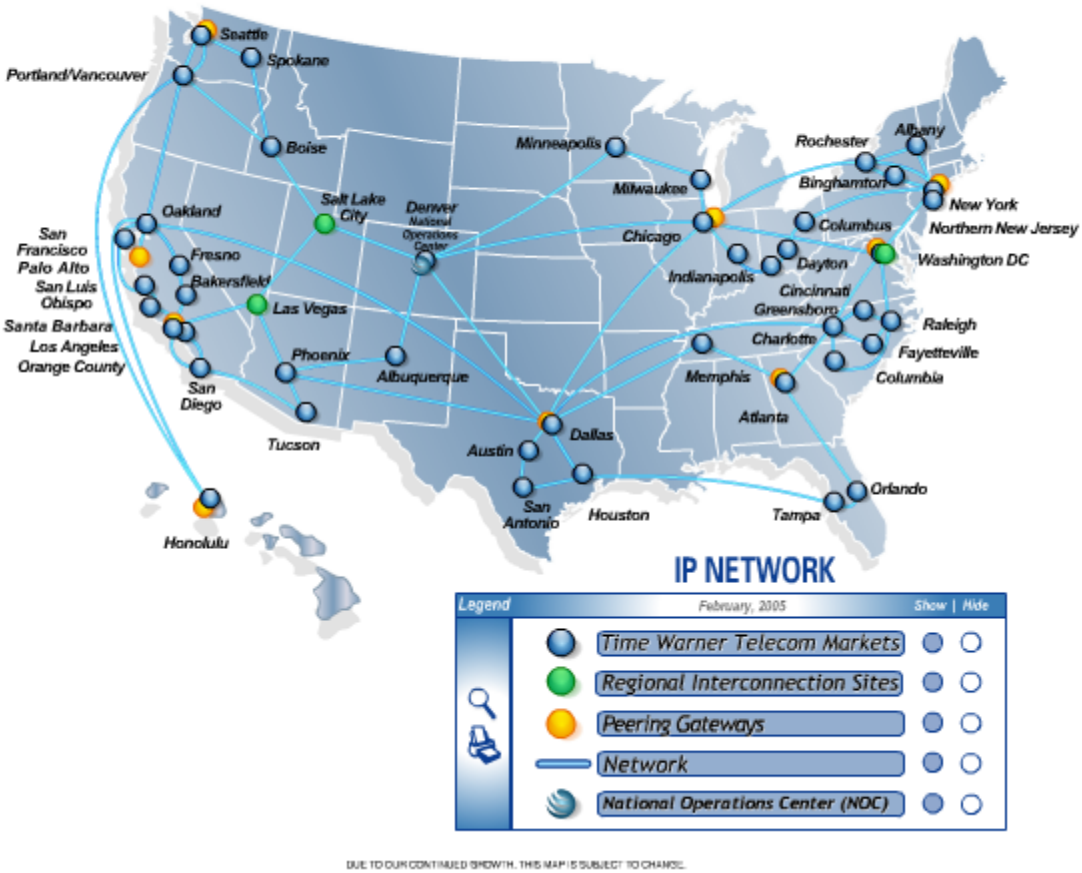
Connecting Your Business to More Business begins by delivering high speed, secure, and reliable communications over our more than 19,000 miles of fiber networks, to business in 22 states and 44 U.S. markets. We connect to more than 5,000 buildings and pass thousands more, providing us a unique opportunity to meet the growing demand for new data services and to capture increased market share. Our optical networks are fast, powerful, flexible, secure and highly reliable to deliver a comprehensive suite of voice, data, dedicated Internet and integrated communications services to our customers.

General Network Map

IP Backbone Map

TIME WARNER TELECOM

CONNECTING YOUR BUSINESS TO MORE BUSINESS



DUE TO OUR CONTINUED GROWTH, THIS MAP IS SUBJECT TO CHANGE.

U.S./Canada

*Indicates WilTel Communications Network Centers where ATM, frame relay, private line, optical wave, voice and IP services are available

U.S./Canada

*Indicates WilTel Communications Network Centers where ATM, frame relay, private line, optical wave, voice and IP services are available

Complete Network Assets

Network Maps Home: **Normal View** | Large View